

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

**AIR QUALITY PERMIT
Issued under 401 KAR 52:040**

Permittee Name: Taubensee Steel & Wire Company
Mailing Address: 3200 Ohio Drive, Henderson, KY 42420

Source Name: Taubensee Steel & Wire Company
Mailing Address: 3200 Ohio Drive, Henderson, KY 42420

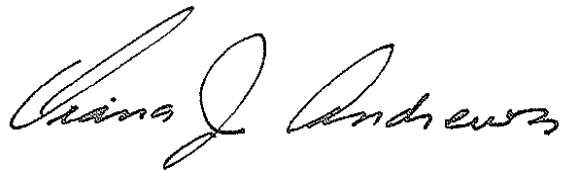
Source Location: 3200 Ohio Drive, Henderson, KY 42420

Permit ID: S-07-148
Agency Interest #: 38483
Activity ID: APE20070001
Review Type: Minor Source, Operating
Source ID: 21-101-00116

Regional Office: Owensboro Regional Office
3032 Alvey Park Drive W
Owensboro, KY 42303
(270) 687-7304

County: Henderson

Application
Complete Date: October 15, 2007
Issuance Date: March 7, 2008
Revision Date:
Expiration Date: March 7, 2018



**John S. Lyons, Director
Division for Air Quality**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

01 (B3-a) Indirect Heat Exchanger

Description:

York Shipley #564-SPHC-200-N – 200 HP Boiler
Natural gas fuel
8.315 mm Btu/hr
Date Installed – 1994

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers, applies to the particulate emissions and sulfur dioxide emissions of indirect heat exchangers with a capacity of greater than one million BTU per hour that were commenced on or after April 9, 1972 (for indirect heat exchangers with a capacity of 250 million BTU per hour heat input or less).

1. Operating Limitations:

N/A

2. Emission Limitations:

- a) Particulate Emissions:
 - 1. Particulate emissions shall not exceed 0.56 lb/mmBTU.
 - 2. Visible emissions shall not exceed 20% opacity except as provided for in 401 KAR 59:015, Section 4(2) (b) and (c).
- b) Sulfur Dioxide Emissions
 - 1. Sulfur dioxide emissions shall not exceed 3.0 lbs/mmBTU.

Compliance Demonstration Method:

- a) Compliance with the particulate emission limits and opacity limits are demonstrated when burning natural gas, based on an AP-42 emission factor of 7.6 lbs PM/million standard cubic feet (mmscf) and a fuel heat capacity of 1020 mmBtu/mmscf.
- b) Compliance with the sulfur dioxide limit is demonstrated when burning natural gas, based on an AP-42 emission factor of 0.6 lbs SO₂/mmscf and a fuel heat capacity of 1020 mmBtu/mmscf.

3. Testing Requirements:

None

4. Monitoring Requirements:

The permittee shall monitor and maintain monthly records of natural gas usage.

5. Recordkeeping Requirements:

Monthly records of natural gas usage shall be kept for a period of five years.

6. Reporting Requirements:

Please refer to reporting requirements in Section C.3.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

02 (B3-b) Caterpillar Generator - 537 HP

Description:

Caterpillar Model 3406-350KWW 277/480V – 537 HP Generator

Diesel fuel

Date Installed – 2/22/2001

APPLICABLE REGULATIONS:

1. Operating Limitations:

N/A

2. Emission Limitations:

N/A

3. Testing Requirements:

None

4. Monitoring Requirements:

The permittee shall monitor and maintain monthly records of fuel oil usage.

5. Recordkeeping Requirements:

Monthly records of the usage shall be kept for a period of five years.

6. Reporting Requirements:

Please refer to reporting requirements in Section C.3.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- 07 (B8) Pickling Tank #1
Construction date: 1994
(B22) Wet Scrubber followed by Demister (B23), control for Pickling Tank #1
- 08 (B9) Pickling Tank #2
Construction date: 1994
(B 24) Wet Scrubber followed by Demister (B25), control for Pickling Tank #2
(B10) Dip/Rinse Tank #1
(B11) Dip/Rinse Tank #2
(B12) Dip/Spray Rinse

Description:

The process involves the chemical cleaning, descaling and coating of coil rod.

APPLICABLE REGULATIONS: 401 KAR 59:010, New Process Operations, applies to the particulate matter emissions from units constructed on or after July 2, 1975, which are not subject to another emissions standard with respect to particulates in 401 KAR Chapter 59.

1. Operating Limitations:

Maximum operation hours for Pickling Tank #1 and #2 shall not exceed 1000 hours a year.

Compliance Demonstration:

See Monitoring Requirements below

2. Emission Limitations:

- a) No person shall cause, suffer, allow, or permit any continuous particulate emission into the open air from a control device or stack associated with any affected facility, which is equal to or greater than twenty (20) percent opacity.
- b) Mass Emission Standard for particulate emissions from all emission points: 401 KAR 59:010 Section 3 (2), hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A 40 CFR 60, shall not exceed the limit calculated by the following equation:

$$E = 3.59 P^{0.62}$$

Where E is the particulate emission in lbs/hour and P is the process weight (i.e. the maximum amount of solid scraps/wastes produced or maximum amount of output product) in tons/hour. If the process weight is less than or equal to 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hour

Compliance Demonstration

- a) Compliance with hourly particulate emission limit shall be determined as follow:
Hourly Emission Rate = [(Monthly processing rate x Emission Factor listed in KY

**SECTION B - EMISSION POINTS, EMISSIONS UNITS APPLICABLE
REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

EIS or from the latest Stack Test)/ (Hours of operation per month)]x (1-control efficiency)

- b) Compliance with the opacity limits shall be demonstrated by performing the monitoring and recordkeeping requirements listed under Section 4 Monitoring, Record Keeping, and Section 6, Reporting Requirements during all periods.

3. Testing Requirements:

None

4. Monitoring Requirements:

- a) The permittee shall monitor the monthly hours of operation and the total monthly input of raw materials of each processes unit at each emission point.
- b) For each stack, vent or control system:
 - i. Twice a month observations of visible emissions during operation of associated equipment
 - ii Observations of visible emissions during all periods of control equipment malfunction.
If visible emissions are seen during the observation, Method 9 shall be used to determine the opacity.
- c) Record should be kept of the operating hours of pickling Tank #1 and #2

5. Recordkeeping Requirements:

- a) The permittee shall maintain a log of qualitative visual observations performed. The log shall note, whether the visible emissions were normal for the process
- b) The permittee shall keep records of the monthly hours of operation and the total input of raw materials of each processes unit at each emission point.

6. Reporting Requirements:

Please refer to reporting requirements in Section C.3.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**09 (E3) Oil Spray Booth****Description:**

The process involves the individual articles to be coated with a liquid spray while the articles are supported and closely spaced on a conveyor for movement through the booth.

APPLICABLE REGULATIONS:

401 KAR 59:010, New Process Operations, applies to the particulate matter emissions from units constructed on or after July 2, 1975, which are not subject to another emissions standard with respect to particulates in 401 KAR Chapter 59.

1. Operating Limitations:

N/A

2. Emission Limitations:

- a) No person shall cause, suffer, allow, or permit any continuous particulate emission into the open air from a control device or stack associated with any affected facility, which is equal to or greater than twenty (20) percent opacity.
- b) Mass Emission Standard for particulate emissions from all emission points: 401 KAR 59:010 Section 3 (2), hourly particulate emissions for each emission point as measured by Reference Method 5, Appendix A 40 CFR 60, shall not exceed the limit calculated by the following equation:

$$E = 3.59 P^{0.62}$$

Where E is the particulate emission in lbs/hour and P is the process weight (i.e. the maximum amount of solid scraps/wastes produced or maximum amount of output product) in tons/hour. If the process weight is less than or equal to 0.5 ton/hour, the particulate matter emission limitation shall be 2.34 lbs/hour

Compliance Demonstration

- a) Compliance with hourly particulate emission limit shall be determined as follows:
Hourly Emission Rate = [Monthly processing rate x Emission Factor listed in KY EIS or from the latest Stack Test / (Hours of operation per month)]x (1-control efficiency)
- b) Compliance with the opacity limits shall be demonstrated by performing the monitoring and recordkeeping requirements listed under Section 4 Monitoring, Record Keeping, and Section 6, Reporting Requirements during all periods.

3. Testing Requirements:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Monitoring Requirements:

- a) The permittee shall monitor the monthly hours of operation and the total monthly raw materials of each processes unit at each emission point.
- b) For each stack:
 - i Once a month observations of visible emissions during operation of associated equipment.
If visible emissions are seen during the observation, Method 9 shall be used to determine the opacity.

5. Recordkeeping Requirements:

- a) The permittee shall maintain a log of qualitative visual observations performed. The log shall note, whether the visible emissions were normal for the process
- b) The permittee shall keep records of the monthly hours of operation and the total input of raw materials of each processes unit at each emission point.

6. Reporting Requirements:

Please refer to reporting requirements in Section C.3.

SECTION C - GENERAL CONDITIONS

1. Administrative Requirements

- a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and re-issuance, or revision of this permit.
- b. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15]
- c. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- d. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, re-issuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition [Section 1a-4, 5, of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- e. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- f. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:040 Section 11(3)].

2. Recordkeeping Requirements

- a. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:040 Section 3(1)(f) and Section 1b-IV-2 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].

SECTION C - GENERAL CONDITIONS (CONTINUED)

- b. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

3. Reporting Requirements

- a. (1) In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- (2) The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition a.(1) above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report [Section 1b-V-3 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- b. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the permit [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- c. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. The summary reports are due January 30th and July 30th of each year. All deviations from permit requirements shall be clearly identified in the reports. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

4. Inspections

In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency:

SECTION C - GENERAL CONDITIONS (CONTINUED)

- a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation.
- b. To access and copy any records required by the permit.
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.
- d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

5. Emergencies/Enforcement Provisions

- a. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- b. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- c. Emergency provisions listed in General Condition 5.b are in addition to any emergency or upset provision contained in an applicable requirement [401 KAR 52:040, Section 22(1)].
- d. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040, Section 22(2)].

6. Compliance

- a. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
 - (1) Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly

SECTION C - GENERAL CONDITIONS (CONTINUED)

- maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.
- (2) All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and non routine maintenance performed on each control device. Daily observations are required during daylight hours of all operations, control equipment and any visible emissions to determine whether conditions appear to be either normal or abnormal. If the operations, controls and/or emissions appear to be abnormal, the permittee must then comply with the requirements of Section C – General Conditions, 3.a.(2), of this permit.
- (3) A log of the monthly raw material consumption and monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division [401 KAR 50:055, Section 2].
- b. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
- (1) Identification of the term or condition;
 - (2) Compliance status of each term or condition of the permit;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The method used for determining the compliance status for the source, currently and over the reporting period, and
 - (5) For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - (6) The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality	Division for Air Quality
Owensboro Regional Office	Central Files
3032 Alvey Park Drive W	803 Schenkel Lane
Owensboro, KY 42303	Frankfort, KY 40601-1403
- c. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:
- (1) Applicable requirements that are included and specifically identified in this permit; or
 - (2) Non-applicable requirements expressly identified in this permit [401 KAR 52:040, Section 11].

SECTION D - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:040, Section 6. While these activities are designated as insignificant the permittee shall comply with the applicable regulation and any level of periodic monitoring specified below.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. (B3-c) Chemical Feed and Condensate Tank	NA
2. (B14) Lime Tank	NA
3. (B15) Bonder Lube Tank	NA
4. (B16) Phosphate Tank	NA
5. (B17) Dip/Spray Tank	NA
6. (B18) Neutralizing Tank	NA
7. (B19) Lube Tank	NA
8. (B20) Loading/Unloading Racks	NA
9. (B21) 60 Ton Chiller	NA
10. (B26) Sulfuric Acid Tank	401 KAR 63:021
11. (B27) 14,000 CFM Exhaust Fan	NA
12. (B28) 14,000 CFM Exhaust Fan	NA
13. (B29) 14,000 CFM Exhaust Fan	NA
14. (B30) 14,000 CFM Exhaust Fan	NA
15. (B5-a) Recovered Acid (RA) Tank	401 KAR 59:010
16. (B5-e) Spent Liquor Tank	401 KAR 59:010